Proactive herd management

KETOSIS

HEAT

SUBCLINICAL MASTITIS
Peace of mind – Herd Navigator shows you the way to improve herd performance and profitability, empowering you to stay competitive as a professional farmer in the dairy business.

The award winning herd management tool

New Product Europe Award at Agromek

Gold Trophy at Paris SIA

Golden Hoof at Agribex
You want to fight cow diseases as early as possible to prevent serious problems, but you lack a smart tool to help you navigate through them. You want to do everything possible to improve animal welfare and product quality, but you are drowning in workload. You want to know that your investment is worth making and the return is quick and measurable.

Set your sights on Herd Navigator™ to support your drive for quality dairying.

Herd Navigator monitors your herd automatically, day by day, analysing the milk produced on farm. Herd Navigator dramatically improves three key areas:

- Reproduction
- Mastitis detection
- Ketosis detection

This ensures early identification of cows needing special attention – with clear information on the action to take, based on the data.

Herd Navigator is delivered with customer training at start up and continuous biological advisory service. Herd Navigator supports you in making the most of your cows’ potential, to optimize your dairy herd performance and reduce costs.

*Data source: 4 test and 5 commercial farms in Denmark and the Netherlands running Herd Navigator, 2009.

### Focus area | Parameter analysed in milk | Herd Navigator identifies
--- | --- | ---
Reproduction | Progesterone | Heat and silent heat  
Likelihood of success at insemination  
Pregnancy  
Abortion  
Cysts  
Anoestrus

Udder health | LDH – lactate dehydrogenase | Mastitis  
Subclinical mastitis

Feeding and energy | Urea  
BHB – beta hydroxybutyrate | Feed ration – protein  
Ketosis  
Subclinical ketosis  
Secondary metabolic disorders

Herd Navigator has achieved astonishing results* in terms of productivity and profitability. This is due to the system’s accuracy that enables precise and early action to be taken for better herd health.

---

Herd Navigator provides the opportunity to improve economic results between EUR 250-350 per cow per year, by optimizing the performance of each individual cow: in reproduction, health and feeding. The system helps to improve the herd manager’s daily overview of the dairy herd. It delivers clear information so farmers can take early quick action on disease indications; and it is right on the spot when it comes to heat detection and time for insemination.
Ole Lind: “We get a good pay back on our time. Just the fact we are no longer running around looking at 300 cows for signs of heat – it saves a great deal of time. With Herd Navigator it takes no more than 10 minutes for me to check the whole herd for heat. We have successfully inseminated a number of cows where we did not see any visual heat signals. Herd Navigator pointed them out – and the inseminator confirmed that the cows were in heat. We would never have found these cows before.”

Lystbjerggaard, Denmark, milk 300 cows in four VMS
Heat detection rates of at least 95% are reported on Herd Navigator farms. Pregnancy rates also increased significantly in a very short time: up to 50%.

**Automatic progesterone test**

Herd Navigator automatically measures the level of progesterone in milk – the “gold standard” for reproductive status. It indicates heat and the right insemination time, lists animals for final pregnancy confirmation, indicates early abortion and lists the cows with risk for cysts and prolonged anoestrus.

With Herd Navigator less time is spent on monitoring heats for you or your team – saving time for other important activities. What once took an hour or two is now done best in ten minutes.

A number of Herd Navigator farmers have stopped performing manual pregnancy tests and fully trust their Herd Navigator instead.

Herd Navigator helps you to reduce open days, optimize calving intervals and improve insemination success. It all adds up to significant savings and efficiencies.

### Reproduction status – progesterone profile chart

<table>
<thead>
<tr>
<th>Milk progesterone (ng/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

- **Heat cycle**
- **Luteal cyst**
- **Follicle cyst**
- **Pregnancy**

<table>
<thead>
<tr>
<th>Heat/Insemination</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
</tr>
<tr>
<td>days</td>
</tr>
</tbody>
</table>
Fighting disease at an early stage

Bente Tang: “Herd Navigator detects mastitis several days earlier than we see clinical signs. Finally we have the tool we need to work early and proactively to keep our cows healthy.”

Hanningaard, Denmark, milks 130 cows in a herringbone parlour
Herd Navigator is able to detect mastitis up to 3 days before physical signs are visible.

**Udder health – mastitis**

Each undetected subclinical case may cost up to EUR 240 in milk losses. But how can you effectively screen your herd?

**Herd Navigator does the job for you**

Herd Navigator automatically measures lactate dehydrogenase (LDH) in milk. The enzyme LDH is highly correlated to somatic cell counts and is closely linked to the presence of mastitis. As levels of LDH rise rapidly when an infection starts, measuring this with Herd Navigator means an infection can be detected several days before it is clearly visible.

Automatic monitoring and analysis by Herd Navigator, sampling the right cows during their specific risk periods, identifies which cows need to be checked or treated. You are able to take proactive action – before severe mastitis develops. And with the time saved, you’ll be able to work on preventive strategies against mastitis pathogens.
Jørgen Clemmensen: “Herd Navigator has a lot of advantages, but the main benefit for me is the early detection of ketosis – this is really lost money to gain back which we never saw before. And we can spend time saved from manual work on more important things.”

Idasminde, Denmark, milks 180 cows in a herringbone 2 x 12 parlour
Herd Navigator™ detects early signs of ketosis. Detection of previously unobserved cases of ketosis has a considerable effect on milk production. With immediate treatment to avoid clinical ketosis, the system can help prevent milk losses of up to 600 kg milk per cow per lactation.

Feeding and energy balance – ketosis
Herd Navigator™ detects early signs of ketosis. Detection of previously unobserved cases of ketosis has a considerable effect on milk production. With immediate treatment to avoid clinical ketosis, the system can help prevent milk losses of up to 600 kg milk per cow per lactation.

The system has detected 50% more diagnoses of clinical and subclinical ketosis than normal. This allows you to uncover hidden savings and fine tune your Standard Operating Procedures to quickly improve results.

Subclinical ketosis is caused by a negative energy balance shortly before and during the first weeks of lactation. Herd Navigator automatically monitors your herd – the right cows at the right time, when they are most susceptible. The indicator used is BHB – beta hydroxybutyrate.

Herd Navigator identifies all cows at risk of ketosis – so you can act early and proactively, to prevent a loss in milk production.

Substantial savings occur thanks to proactive management, better handling of ketosis cows and ongoing improvements in feeding routines.

Feed costs can be 40% or more of the direct production cost per kg milk. But by adjusting the protein and energy content, you can increase feeding efficiency and reduce feed costs. By measuring urea levels during milking (urea is an indicator of over or under supply of feed protein), Herd Navigator provides, on a regular basis, the data that you need to adjust your feed ration.
Kim Møller Christensen: “It has been easy to understand and work with Herd Navigator. I appreciate the software functions so I can set up my own rules for different “attention list” cows. This is a step forward in managing my herd and with a bigger herd and more employees it would be essential.”

Tange skovgård, Denmark, milks 146 cows in a herringbone 2 x 10 parlour
Herd Navigator comprises a new advanced analysis system in the VMS or milking parlour connected to a Herd Management program on farm.

While the cows are being milked, representative milk samples are taken simultaneously from different milking points and sent, one-by-one to the analyser instrument. The system automatically selects, via a sophisticated biological model, which cows to sample at which milking session and for which parameters. The analytical results are processed in the biological model and displayed in your dairy herd management system.

**Herd Navigator support:**
- Easy to use software integrated into the herd management program.
- Well arranged attention lists and graphs for all animals in need of special attention.
- Preset action proposals for the “attention” cows (standard operating procedures – SOP).
- Functionality to develop your own treatment schedule, which you may choose to do with support from your local veterinarian or advisor.

Connect with the experts: if you choose, your veterinarian and advisory service may access your dairy management data remotely to provide advice, quickly and efficiently, based on real time data from your herd.

You and your advisors receive in-depth training to maximize the benefits from your Herd Navigator management solution.

One Herd Navigator works with up to four DeLaval VMS

While the cows are being milked in the VMS, individual, representative milk samples are sent via the sample intake unit to the analysis instrument. The analytical results are processed in an advanced biological model and displayed in the Herd Management program on farm along with suggested actions.
**Combined peak competences**

Herd Navigator™, the first product of the FOSS & DeLaval Solutions brand, has been developed by FOSS A/S and DeLaval International AB, in close co-operation with the Faculty of Agricultural Sciences at Aarhus University and the Danish Cattle Federation.

FOSS helps the milk and dairy industry to keep pace with their analysis demands. FOSS dedicated analytical solutions have proven significant for dairy herd improvement, raw milk testing, standardization in dairy production and verification of end-product quality. FOSS has been the market leader within this area for 50 years.

DeLaval develops and supplies milking and other farm equipment for dairy cows, sheep, goat, and buffalo farming. DeLaval drives progress in milk production by recognizing and serving farmers’ needs. DeLaval delivers complete solutions to empower their customers and give them better control of their business.

XXXXX supports the solution with education, application and advisory services to ensure a thorough introduction to the system and best utilization of all the herd improvement potential offered by Herd Navigator.

**The power of three**

These peak competences together have created the unique Herd Navigator™ as a complete dairy management solution.